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Borough of Shrewsbury.



REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1928.

A. D. SYMONS, M.D., D.P.H.

*Shrewsbury :
Brown & Brinnand, Ltd., 5a, Claremont Street.*



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BOROUGH OF SHREWSBURY.

THE PUBLIC HEALTH COMMITTEE.

Mr. Alderman ADAMS.*† (Chairman).

THE MAYOR (Mr. Councillor SMOUT).*†

Mr. Alderman DAVIES.*

Mr. Alderman PERKS.*

Mr. Councillor ASBURY.*

Mr. Councillor BROMLEY.*†

,, ,, COLE.*

„ „ DOWNES.

„ „ JACKSON.*

„ „ MADDISON.*

TIPTON

„ „ WOOLLAM.

THE MATERNITY and CHILD WELFARE SUB-COMMITTEE.

Mr. Alderman ADAMS (Chairman).

THE MAYOR (Mr. Councillor SMOUT).

Mr. Alderman PERKS.

Mr. Councillor ASBURY.

Mr. Councillor BROMLEY.

„ „ COLE.

„ „ DOWNES.

„ „ JACKSON.

„ „ WOOLLAM.

” ” WITHERS.

Representative Members :

Mrs. ALLEN.

Rev. Prebendary P. A. E. EMSON.

Mrs. GALE.

D. D. MACPHERSON, Esq.

MISS THOMPSON.

THE SHREWSBURY and ATCHAM JOINT HOSPITAL BOARD.

Mr. Alderman ADAMS (Chairman).

THE MAYOR (Mr. Councillor SMOUT) *ex officio*.

Mr. Alderman DAVIES.

Mr. Alderman DEAKIN.*

Mr. Councillor DOWNES.

Mr. Councillor MADDISON.

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H. F. HARRIES, ESQ.

J. H. INIONS, Esq.

T. KYNASTON, ESQ.

Col. H. W. LOVETT.

* Also members of the Housing Acts Committee of which Mr. Alderman DEAKIN is Chairman, together with Mr. Alderman PACE.

† Members of the Housing Selection Sub-Committee of which Mr. Alderman ADAMS is Chairman.

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

Medical Officer of Health.	}	† A. D. SYMONS, M.D., Ch.B., M.R.C.S., L.R.C.P., D.P.H..
School Medical Officer.		
Medical Officer for Maternity and Child Welfare.		
Medical Superintendent of Small- pox and Isolation Hospitals.		
Sanitary Inspectors :	{	*† THOMAS SPEAKE, F.S.I.A. † W. LITTLE, C.R.S.I.
Health Visitors :	{	† Miss F. E. BRETT, Cert.S.I. Exam.Bd., Dip.Nat.Health. † Miss W. KYD-AITKEN, C.M.B. Fully qualified Health Visitor.
Matron of Isolation Hospital :		Miss A. K. ELLIS.
School Nurse :		† Miss M. WILLIAMS.
Chief Clerk and Laboratory Assistant :		† G. NICHOLAS.
Assistant Clerks :	{	† Miss L. L. LEWIS. L. G. W. HARDING.
Abattoir Superintendent and Meat Inspector :		* FRANK FARRELL.

PART TIME OFFICERS.

Medical Officer of Ante-Natal Clinic :	R. L. E. DOWNER, M.D., B.S., M.R.C.S., L.R.C.P.
Dental Officer Maternity and Child Welfare :	W. BAILEY SHIELDS, L.D.S.
Food and Drugs Inspector :	W. C. HEAS.
Public Analysts :	A. BOSTOCK HILL, M.D., D.P.H., F.I.C. W. T. RIGBY, F.I.C.

* Qualified Meat Inspectors.

† Contribution towards salary made under Public Health Acts.
or by Exchequer grants.

HEALTH CENTRE,
MURIVANCE,
SHREWSBURY,
May, 1929.

*To the Mayor, Aldermen and Councillors of
the Borough of Shrewsbury.*

Mr. MAYOR AND GENTLEMEN,

I have the honour to present to you my annual report on the health of the Borough during the year 1928.

This report has been written in what is, perhaps, for the first time in the history of the town, a permanent home for the Public Health Department. The wisdom of its purchase has already been proved by the experience already obtained as to its suitability for the administrative and clinical work that is carried out in it.

Some surprise may be expressed that the estimate of the population of the town in 1928 by the Registrar General, shows a decrease instead of an increase. The explanation for this is given in the appropriate section of the report.

The death rate of 12.3 is less than it was in 1927, though slightly higher than the three years previous to that year.

Heart disease in which term are included those dying of old age was the largest individual cause of death.

Practically half of the total number of deaths occurred in persons of the age of 65 and over.

The birth rate with the exception of one of the War years was the lowest on record.

There was a rise in the number of Infant deaths and in the Infant Mortality rate, which however is below that of the rest of the country generally.

It is one of the human weaknesses that things are so often apt to be taken for granted, giving rise to a sense of security which in some instances is absolute, but in others is false.

Because the present generation is ignorant of the ravages that virulent smallpox can produce, the safeguard of vaccination is being neglected. Because typhoid fever is no longer an endemic pestilence in this town, the public are apt to forget why it is no longer endemic.

It is therefore interesting to look back fifty years to compare the state of things then with the present day and to realise the debt of thanks that is due to previous generations, who, forced by circumstances it is true, set about to create a sanitary condition of the town from which to-day we benefit.

In the report of the Medical Officer of Health of Shrewsbury of 50 years ago, I find the following figures and statements which I quote and compare with those of 1928.

SHREWSBURY			1878.	1928.
Birth Rate	...	...	32.2	16.9
Death Rate	...	...	22.2	12.3
Infant Mortality Rate	...	...	140.	56.

The reduction in the Death and Infant Mortality rates speak for themselves, but though to-day, we more or less take the existing figures as a matter of course and hope to improve on them, the Medical Officer of 50 years ago would be very pleasantly surprised, for he states as follows :—" I am of opinion that with its advantages of site, subsoil, and surroundings, Shrewsbury **might** attain a death rate of 16 per thousand. That we can ever hope to attain to this I do not think, as aggregation of population is of itself a most powerful influence affecting the death rate ; but I venture to repeat what I have stated in my previous reports that the annual mortality of Shrewsbury may be expected to be reduced to an average little over 17 per thousand."

This same Medical Officer was however correct in his vision regarding the endemicity of Typhoid Fever. He mentions that in 1878, there were 250 cases of Typhoid Fever with 20 deaths and states in alluding to this disease " This dark spot in the sanitary record of the Borough has this redeeming quality, that I believe it to be absolutely and completely removable."



He was right, and the Town Council of years gone by were right when they made provision for the proper sewerage, drainage and water supply of the town.

But do we to-day sufficiently appreciate what we have inherited or rather do we not take too much for granted ?

Whether we do or not, the fact remains that the sanitary revolution of the past has created a bulwark of reasonable safety on which base are being erected the modern developments of Public Health work which is now more intimately concerned with the individual, as well as his environment.

Health legislation which came into operation during the year was as follows :—Nursing Homes Registration Act 1927, Rag Flock Act (1911) Amendment Act 1928, Shops (Hours of Closing) Act 1928, Public Health (Dried Milk) Regulations, Public Health (Condensed Milk) Regulations, and the full operation of the Public Health (Preservatives, etc., in Food) Regulations.

The Shops (Hours of Closing) Act which has been adversely criticised in certain sections of the Press on account of certain anomalies in some of its special provisions, when considered in the light of its main object, is a beneficial enactment for a large section of the community.

By ensuring that the hours of work are regulated and that periods for rest or recreation are allowed, the mental and physical health of employees is thus guarded.

Britain, of recent years has been accused of having too many holidays and of devoting too much time to sport.

Although this statement may be partially true it can be met with the answer that since the advent of the industrial era holidays are an indispensable antidote to urbanisation.

Before the days that England became an industrial nation holidays were holy days or feasts of the Church—bright breaks in the quiet life of villages and small towns. In those days when the healthy occupation of agriculture was the main industry, holiday and travel were more for the benefit of the mind than of the body.

The mind can be rested, even in cities, because a change, provided by a mental hobby, is as good as a rest for the brain. It is the body of the modern sedentary city dweller which needs a holiday and then his brain will recuperate automatically.

So, the business man can regard a holiday as a sound investment in health and as an excellent insurance against incapacitating illness both for himself and for his employees. Fatigue and subconscious discontent as well as goods are manufactured by modern machinery the working of which so often entails monotony.

May it not be that the British worker of to-day of all classes and both sexes having lost or never even acquired the satisfaction brought about by pride of craftsmanship, finds that work done chiefly for wages is a drudgery?

To break this monotony and afford opportunities for mental or physical occupations in other directions is the palliative measure which holidays provide.

I should like to draw your particular attention to that section of the Report dealing with Housing, because if existing methods and lack of co-ordinated supervision continue to prevail, there is a likelihood of a diminution of effort with regard to further Housing schemes setting in.

I believe that better management of the Housing Estates is needed to prevent some of the houses at any rate from deteriorating once the newness has disappeared, into whited sepulchres.

To my colleagues, the various members of my Staff and the Voluntary helpers at the Welfare Centre, I again tender my thanks for their ready and willing assistance.

I have the honour to be, Gentlemen,

Your obedient Servant,

A. D. SYMONS. .

GENERAL STATISTICS, 1928.

Rateable value of the Borough	...	...	...	£192,507
Sum represented by a Penny Rate	...	...	...	£717
Area of the Borough (excluding water) in acres	...			3,470
Population (Census 1921)	...	...	...	31,030.
Population (Registrar General's estimate middle of 1928)	{ For Birth Rate For Death Rate			32,510. 31,870.*
Persons per acre calculated on 1928 population	...			9.3
Inhabited houses (Census 1921)	...	...	...	6,742.
Families or separate occupiers (Census 1921)	...			6,995.

MALE. FEMALE.

Births	{ Legitimate 265 258 Illegitimate 18 11		Total	552
Birth Rate	...	...	...	16.9
Deaths	...	...	...	392
Death Rate	...	...	...	12.3
Number of Women dying in, or in con-	{ from sepsis sequence of Childbirth { other causes			Nil. 2
Deaths of Infants under 1 year of age	{ legitimate per 1,000 births { Illegitimate			57.3 34.4
Infant Mortality Rate	...	...	...	56
Deaths from Measles (all ages)	...	...	...	1
„ „ Whooping Cough (all ages)	...	...	...	2
„ „ Diarrhoea (under 2 years of age)	...	...	...	1

* Excludes non-civilians.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

Shrewsbury centrally situated in a large agricultural district is a busy centre for the purpose of trading in farm stock ; it is also an important railway centre.

Industrial works are not numerous and there are no industries in which the occupation entails especial danger to health.

WEATHER CONDITIONS.

Preliminary steps have been taken towards the setting up of a climatological station in Shrewsbury, a site having already been approved by the Meteorological Office.

When this station is in being, data will be available as to the amount of sunshine received in this locality, as well as rainfall.

The accompanying rainfall statistics again kindly supplied by Dr. Gepp show that the rainfall approximated to the normal average of 25 inches.

There were $3\frac{3}{4}$ inches less of rain compared with 1927.

The greatest rainfall occurred during the month of January, which unusual occurrence may be attributed to the fact that almost an inch of rain,—the greatest fall in 24 hours throughout the year, fell on January 21st, and that rain which was measurable occurred on no less than 25 of the days of that month.

May and September had the greatest number of rainless days, but April was actually the month of least rainfall.

Rainfall at Coton Hill, Shrewsbury.

Month.		Total Fall.	Greatest fall in 24 hours.		Days with .01 or more.
		Inches.	Inches.	Date	
January	...	3.56	.90	21	25
February	...	1.78	.29	4	11
March	...	1.69	.30	21	17
April	...	1.03	.33	12	14
May	...	1.19	.29	19	10
June	...	2.84	.49	8	19
July	...	1.22	.58	30	10
August	...	2.83	.60	22	16
September	...	1.16	.36	24	10
October	...	3.07	.59	10	20
November	...	2.86	.33	19	20
December	...	1.86	.37	30	16
Totals	...	25.09			188

POPULATION.

The Registrar General's estimate of the population at the middle of 1928 was 32,510, which is a reduction of 270 on the estimate of the population for the year 1927.

As the births during the year exceeded the deaths by 160 and as the general local impression that the town as well as its population is gradually growing, it may seem surprising that the Registrar General has arrived at a figure as set out above.

Enquiry has been made as to the reason for this reduction and information has been obtained which explains it.

The Registrar General points out that "The estimate for an individual area is not the product of an isolated enquiry limited in its scope to purely local indications ; it is definitely related to the estimates of all the other constituent areas of the country and must take into account population movements which are complementary and reciprocal as between the area in question and a large number of contiguous or adjacent areas."

He goes on to say " Each annual process of estimation involves, in a sense, a fresh review of the whole period which has elapsed since the previous census, advantage being taken of any new material which has come to light to promote the progressive correction of the figures."

" In the present instance, **in view of the special purposes which the estimates are required to serve**, special efforts have been made to review the whole period for the purpose of eliminating any imperfections in previous estimates."

No doubt "The special purpose which the estimates are required to serve " means that under the new block grant system of finance which is arrived at for any given area partly on a basis of that area's population, care has had to be taken that a grant in excess of that to which any particular area may be entitled according to its population, is not made.

Only until an actual census is taken, can the correct figure and consequent correct grant be estimated.

The following figures show the population as estimated since the census of 1921.

YEAR.	POPULATION.
1921 (Census)	... 31,030
1922 (Estimated)	... 31,240
1923 ,,	... 31,600
1924 ,,	... 32,360
1925 ,,	... 32,530
1926 ,,	... 32,760
1927 ,,	... 32,780
1928 ,,	... 32,510

VITAL STATISTICS.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1928 AND PREVIOUS YEARS.

YEAR.	Population (estimated) each year.		BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.				
			Un- corrected Number.	Nett.			of Non- residents registered in the District.	of Resi- dents not registered in the District.	Under 1 Year of Age.		At all Ages.		
				Number.	Rate.	Number.			Rate per 1,000 Nett Births.				
										Number.		Rate.	
1920	31268	30964	776	778	23.9	405	13.0	81	50	46	65.5	374	12.1
1921	31030		703	664	21.3	423	13.6	98	57	55	82.8	382	12.3
1922	31240		647	611	19.5	436	13.9	87	68	29	47.4	417	13.3
1923	31600		650	627	19.8	469	14.8	103	36	39	62	402	12.7
1924	32360	31660	679	628	19.4	454	14.3	120	42	29	46	376	11.9
1925	32530	31730	628	579	17.8	435	13.7	116	48	45	77.7	367	11.5
1926	32760	31960	657	588	18.2	446	13.9	121	35	37	62.9	360	11.2
1927	32780	32080	642	598	18.2	479	14.9	124	71	26	43	426	13.2
1928	32510	31870	621	552	16.9	467	14.6	142	67	31	56.1	392	12.3

BIRTHS.

The births notified in the Borough during the year amounted to 621 which includes 31 stillbirths.

Deducting the 31 stillbirths as well as those births which took place at Shrewsbury in Hospitals, Nursing Homes or elsewhere, but were assignable to other districts, the net total of live births during the year was 552, compared with 598 the previous year.

The birth rate is therefore 16.9 per 1,000 population and the stillbirth rate 0.49 per 1,000 population.

BIRTH RATES.

				Live Births.	Stillbirths.
England and Wales	...	...		16.7	0.70
107 Great Towns (including London)				16.9	0.70
156 Smaller Towns (Population					
20,000—50,000)				16.6	0.73
London	...	...	...	15.0	9.53
SHREWSBURY	...	...		16.9	0.49

The manner in which the notifications of births were made is shown in the following table.

Doctor.	Doctor and midwife.	Midwife. or Nurse.	Parent.	Registrar	Total
16	2	576	4	23	621

The 552 live births belonging to Shrewsbury can be analysed as follows :---

	LEGITIMATE.	ILLEGITIMATE.		TOTAL.
Male	... 265	18	=	283
Female	... 258	11	=	269
				} 552

Illegitimate Births. There were 29 illegitimate births during the year. The illegitimate birth rate was 0.88 per 1,000 population ; the illegitimate births being a percentage of 5.2 of the total births.

Stillbirths. There were 31 stillbirths during the year ; 16 of these by Shrewsbury women and 15 by women whose confinement took place in the town, but whose homes were elsewhere.

PLACE OF DELIVERY OF STILLBIRTH.				RESIDENTS.	NON-RESIDENTS.
Own Home	...	...	...	9	—
Royal Salop Infirmary			...	6	10
Private Nursing Homes			...	—	4
In Apartments	...	...	...	1	1

The stillbirth rate per 1,000 population was 0.49, the stillbirths being a percentage of 5.3 of the total births.

Of the 15 Shrewsbury stillbirths 8 were males and 7 were females.

DEATHS.

There were 467 deaths registered as occurring in the Borough, but after making corrections for deaths of visitors and inhabitants of Shrewsbury dying elsewhere, the net deaths belonging to the town amount to 392 giving a death rate of 12.3 per 1,000 persons compared with 13.2 in 1927.

There were 34 fewer deaths than in 1927.

The death rates for 1928 of Shrewsbury and the subjoined were :—

				DEATH RATE 1928.
England and Wales	...	...	...	11.7
107 Great Towns (including London)				11.6
156 Smaller Towns	...	...	...	10.6
London	...	...	...	11.6
SHREWSBURY	...	...	...	12.3

Of the 392 deaths, 189 or practically half occurred in persons of the age of 65 and over.

An analysis of the deaths does not reveal anything which calls for particular comment.

Taking 13 main causes of death, in 8 of them the number of deaths was reduced, in 2 of them the number of deaths was the same and in 3 of them there was an increase compared with the previous year. The three diseases from which there was an increase in the number of deaths were Heart disease and Senile decay, Arterio sclerosis (a degenerative disease) and Pulmonary Tuberculosis.

CAUSES OF AND AGES AT DEATH DURING THE YEAR 1928.

[illegible]

INFANT MORTALITY.

There were 31 deaths of infants under one year of age, 16 being male infants and 15 female.

Of these deaths 1 only was illegitimate.

The Infant Mortality rate per 1,000 live births was 56 compared with 43 last year and 63 in 1926.

The death rate among illegitimate infants was 34.4 per 1,000 births, compared with a rate of 57.3 for legitimate infants.

The following table compares the Infant Mortality rate of Shrewsbury with the rest of the Country.

England and Wales	...	...	65
107 Great Towns (including London)			70
156 Smaller Towns	...	...	60
London	...	...	67
SHREWSBURY	...	...	56

Infant Mortality during the Year 1928.

Net Deaths from stated causes at various ages under 1 year of age.

CAUSES OF DEATH.				Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 1 month	1 month and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total deaths under 1 year
No.													
Congenital Causes	17	Prematurity	...	8	2	—	—	10	1	—	—	—	11
		Congenital Heart Disease	...	—	—	1	1	2	1	—	1	—	4
		Spina Bifida	...	1	—	—	—	1	—	—	—	—	1
		Debility	...	1	—	—	—	1	—	—	—	—	1
Miscellaneous	6	Asphyxia Pallida	...	1	—	—	—	1	—	—	—	—	1
		Asphyxia Neonatorum	...	1	—	—	—	1	—	—	—	—	1
		Umbilical Sepsis	...	1	—	—	—	1	—	—	—	—	1
		Intestinal Obstruction	...	—	—	1	—	1	—	—	—	—	1
		Cerebral Syphilis	...	—	—	—	—	—	—	—	1	—	1
		Papilloma of Larynx	...	—	—	—	—	—	—	1	—	—	1
Respiratory	6	Broncho Pneumonia	...	—	—	—	—	—	2	1	2	—	5
		Bronchitis	...	—	—	—	—	—	1	—	—	—	1
Gastro-Intestinal	1	Diarrhoea	...	—	—	—	—	—	1	—	—	—	1
Infectious Diseases	1	Measles	...	—	—	—	—	—	—	—	1	—	1
Totals	31			13	2	2	1	18	6	2	5	—	31

Although there were 46 fewer births in 1928 compared with the previous year there were 31 infant deaths compared with 26—an increase of 5.

On the surface this appears to be a set back, though small, but progress cannot be maintained by constantly regular steps in the saving of Infant Life which is affected by various factors such as climate, epidemics, and other circumstances over which at present we have no power of control.

However, this small increase in the Infant Mortality rate can practically be attributed to what may be termed a natural phenomenon in that there appears to have been an unusual number of twins born in Shrewsbury in 1928.

Altogether 13 sets of twins made their appearance during the year compared with 4, 6, 7, 2 and 4 sets in the respective previous years, and of these, 3 sets died and of 2 other sets, one of the twins of each set also died, so that of the 31 infant deaths 8 were associated with the occurrence of twin birth.

Reference to the table set out above shows that no less than 17 of the 31 Infant deaths were due to Congenital causes ; 13 occurred within the first week of life, and 18 or 58% of the total Infant deaths, within the neo-natal period.

Although 58% of the Infant deaths occurred within the first month of life mostly due to congenital causes, this does not necessarily imply that they were all unpreventable deaths, nor that the 42% who were sufficiently virile to survive beyond one month were preventable deaths. It is interesting therefore to try and arrive at some approximate conclusions as to the amount of Infant Mortality that was inevitable in the present state of medical knowledge.

For this purpose, data obtained as the result of investigations into each of the 31 Infant deaths have been utilised and enable certain opinions to be formed by classifying the deaths under the three following groups of Unpreventable, Possibly preventable and Preventable.

In the following tabular statements, in those cases in which no remarks are made, they speak for themselves, but where criticism is possible, the reasons for the particular classification is set out.

Unpreventable Infant Deaths.

CAUSE OF DEATH.	Number of Deaths.	REMARKS.
Papilloma of Larynx	1	
Intestinal obstruction	1	
Spina Bifida	1	
Congenital Heart disease	4	
Asphyxia Neonatorum	1	A premature twin.
Total	8	

Possibly Preventable Infant Deaths.

CAUSE OF DEATH.	Number of Deaths.	REMARKS.
Asphyxia Pallida	1	Large child. Prolonged labour. Premature labour might have been induced.
Premature Births	3	No complications or abnormalities otherwise. Prematurity is possibly preventable.
Premature Twins	8	3 of these were probably syphilitic. Treatment of mother during pregnancy might have enabled them to survive. Prematurity is possibly preventable.
Debility	1	Father elderly, child was instrumentally delivered and also suffered from Convulsions.
Total	13	

Preventable Infant Deaths.

CAUSE OF DEATH.	Number of Deaths.	REMARKS.
Cerebral Syphilis	1	
Measles	1	Contracted from brother. 3 other children died of Measles in previous years.
Diarrhœa	1	Was bottle fed from birth.
Umbilical sepsis	1	
Bronchitis	1	One of twins. Not breast fed.
Broncho Pneumonia	5	(1) Marasmus. Not breast fed. Unhealthy house. (2) Overcrowded house. 8 other children. (3) Alcoholic parents. Unhealthy house. Not breast fed. (4) Family live and sleep in 1 room. A sister ? Tubercular. (5)
Total	10	

Allowing for the fact that medical opinion must vary as to what is preventable or unpreventable, the above tabular statements must only be considered as approximately conforming to a general consensus of medical opinion at the present time.

What some even now consider unpreventable, others say is preventable whereas no one at present can foretell what, in the future may be absolutely preventable which now is looked upon as unpreventable.

For instance, it is more than likely that science will some day discover the secret of the determination of sex, so that in generations to come, the law of the State may dictate as to how many males or females are to be allowed to be born.

At present we cannot control the conception of twins or triplets, nor in all cases the premature birth of infants, yet, certain recent knowledge is showing that prematurity is preventable when due to faulty nutrition of the mother, or poisons generated within her body.

But in years to come, if the sex of the infant, the avoidance of twin conception and the prevention of premature birth, can be brought within some measure of voluntary control, the wastage of infant life will be reduced, and pregnancy will be less of a gamble than it is so often is under present conditions.

Most pregnant women, beyond engaging a doctor or a midwife to conduct the confinement, and getting ready the necessary layette for the baby, "take no heed for the morrow," nor ought they or need they, if they were living under natural conditions. But as modern conditions of life are complex and artificial it is desirable that every step that is based on sound hygienic practice should be taken. Ante-natal care is now being studied by the enlightened minority; in the future it will be carried out by the majority when medical science can almost promise that as a result of a comparatively painless labour, the reward will be a full time, single, healthy and virile infant of the sex which the parents desire.

But though it may be possible for science to accomplish all this, it must not be at the expense of making women introspective and over anxious as to their welfare.

Even under modern conditions, a healthy life can be led without weighing out each meal carefully, without consulting a diet table like a menu card, or without performing physical exercises at every opportunity during the waking hours.

Whatever the distant future has in store for those that follow us, we are now particularly concerned with the present and the immediate future, and so to return to the infant mortality of 1928, we note that of the 31 infant deaths, 10 could have been prevented under different circumstances.

Bad housing was a large contributory factor in 4 deaths from Pneumonia.

The baby dying of Diarrhœa was never given his birthright of breast milk.

The case of Cerebral Syphilis need not have arisen if the mother had received anti-syphilitic treatment even when pregnant and the other deaths need not have occurred with due care and proper management.

If therefore, it is even granted that of the "possibly preventable deaths" half were unpreventable, it amounts to the fact that of the total infant deaths half were preventable and half unpreventable.

Translated into figures, the potential infant mortality of Shrewsbury in 1928 might have been 16 deaths instead of 31 deaths or a rate of 28 instead of 56.

And taking into account the rashness of prophesying or making judicious guesses, there is no reason why the **actual** Infant Mortality rate of Shrewsbury in years to come should not be between 20 and 30.

Fifty years ago in 1878 the Infant Mortality rate in Shrewsbury was 140, to-day it is 56, in 1978 it may well be 25.

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Hospitals provided or subsidised by the Borough or County Council.

Fever. Monkmoor Isolation Hospital with an accommodation of 37 beds is maintained by the Shrewsbury and Atcham Joint Hospital Board to serve an area the population of which is approximately 54,000. The hospital is situated 2 miles from Shrewsbury on a site of over 5 acres, which would allow room for expansion. The Accommodation is sufficient for ordinary purposes, but insufficient should a serious epidemic arrive.

Smallpox. A smallpox hospital containing 6 beds is maintained by the Borough Council at the end of the Underdale Road, Shrewsbury.

In view of the degree of unprotectedness of the population against Smallpox, the accommodation would be insufficient to deal with an outbreak of any size. Tentative arrangements, however, have been made to utilise the Isolation Hospital at Monkmoor should the necessity arise. The situation of the hospital is also unsatisfactory, seeing that, among other things, a public footpath adjoins the boundary fence on one side, which is less than 40 feet from one of the wards.

Tuberculosis. The County Council provide two Sanatoria situated at Prees Heath and at Shirlett, near Much Wenlock, with 11 and 62 beds respectively to which Borough cases are admitted. These Sanatoria are each about fifteen miles distant from Shrewsbury.

Hospital provision for cases of Surgical Tuberculosis is made by the County Council, who maintain beds at the Shropshire Orthopædic Hospital, Park Hall, Oswestry.

Maternity. Cases recommended by the Medical Officer of Health are admitted to the Maternity wards at Berrington Hospital, situated $4\frac{1}{2}$ miles from Shrewsbury.

The maintenance charge made by the Atcham Board of Guardians for such patients is £2/2/- per week.

This charge includes transport of the patient in a motor ambulance to and from the Hospital.

Children. There is no institution for sick or ailing children provided or subsidised by local authorities in the Borough.

Orthopædic. The Shropshire Orthopædic Hospital containing over 300 beds and situated near Oswestry is utilised by the Borough and County Councils for the admission and treatment of patients suffering from crippling conditions and surgical Tuberculosis. The cost of maintenance including treatment is 7/- per patient per day.

Institutional Provision for unmarried mothers, illegitimate infants and homeless children in the area. The Shrewsbury (and Shropshire) Refuge and Hostel is an Institution containing 10 beds maintained by voluntary subscriptions and grants.

Un-married mothers with their babies are admitted from Shrewsbury and elsewhere, some payment being made by those admitted, except in special cases who are received free of charge.

The period of stay varies from one week to one year, mothers with babies usually remaining for at least 6 months.

Homeless children are received in one of the Poor Law Homes, three of which are situated in the town.

Ambulance Facilities. A motor ambulance belonging to the Salop County Council is hired for the transport of infectious cases to the Isolation Hospital.

The same ambulance is used for non-infectious or accident cases.

Although the County Council ambulance may be hired for transporting sick persons or accident cases to Hospitals and Nursing homes, it is not always available in an emergency. There is a definite need in this town for an ambulance of its own, and it could be maintained for non-infectious and accident cases only, or be used for infectious cases, other than Smallpox, as well.

A horse drawn ambulance, the property of the Joint Hospital Board, is used occasionally for infectious cases, when the motor ambulance is not available.

The horse ambulance is retained also for the transport of Smallpox cases.

Clinics and Treatment Centres.

Name of Clinic.	Place at which held.	Day and Time.	By whom provided.
Maternity & Child Welfare Centre.	Health Centre, Murivance, Shrewsbury.	Thurs. and Friday 2—4 p.m.	Local Authority.
Ante-Natal Clinic.	Do.	1st & 3rd Wednesdays 3-5 p.m.	„ „
School Clinic.	Do.	Daily (Saturdays excepted) 9.15 a.m.	„ „
Cripple Care Centre.	C.A.W.G. Hall, St. Julian's Friars, Shrewsbury.	Wednesday, 9-15 a.m.	Shropshire Orthopaedic Hospital.
Tuberculosis Dispensary.	17, Belmont, Shrewsbury.	Wednesdays and Saturdays 2 p.m.	Salop County Council.
Venereal Disease Clinic.	1, Belmont, Shrewsbury.	Wednesdays for women 2—4 p.m. Tuesdays and Fridays for men 6—8 p.m.	„ „

Nursing in the Home.

(a) **GENERAL:** The Victoria District Nursing Association employs 2 nurses who carry out nearly the whole of the professional nursing amongst the working classes.

(b) **INFECTIOUS DISEASES:** Arrangements have been made with the Victoria Nursing Association to provide a nurse for the domiciliary treatment of cases of Puerperal Pyrexia, when the certifying practitioner requests the adoption of this measure.

Nursing help in cases of Measles may be given at times by the Health Visitors or School Nurse.

Midwives. The Salop County Council is the supervising authority of midwives, 19 of whom are resident and practice within the Borough. None are employed or subsidized by the Borough Council.

Maternity and Nursing Homes. Under present circumstances the Borough Council have not sought delegation of powers from the County Council under Sec. 9 (2) of the Nursing Homes Registration Act 1927, but have arranged with the County Council that the work under this Act as far as it affects Shrewsbury should be carried out by the County Council.

Arrangements for Investigation of Maternal deaths and cases of Puerperal Fever.

Maternal Deaths. As the County Council are the Local Supervising Authority under the Midwives Acts, an arrangement has been entered into between the County Council and the Borough Council, that the former body shall undertake all investigations under this head in the Borough of Shrewsbury.

Puerperal Fever. In all cases in which the notifying practitioner asks for assistance under either of the four headings set out with regard to Puerperal Fever or Pyrexia on the notification form, he subsequently fills in a questionnaire form supplied by the Health department.

SANITARY CIRCUMSTANCES OF THE AREA.

Water Supply. The dual system of water supply consisting of drinking water supplied by means of self closing water pillars in the streets, and treated river water laid on in the houses for domestic purposes, has given no anxiety as regards quantity or quality of supply during the year.

Distribution mains have been extended over the whole of the Racecourse housing site, also to the Borough boundary on the Wenlock Road.

A 150 horse power electrically driven turbine pumping set has been installed at the Water works.

Analyses both chemical and bacteriological have been made at intervals during the year, the results of which are satisfactory and are set out in the following tables.

Bacteriological Analysis

RIVER WATER.										DRINKING WATER.	
	March, 1928.				June, 1928.		September, 1928.		December, 1928.		June, 1928.
	After Filtration.	Filtration and Chlorination.			After Filtration.	Filtration and Chlorination.	After Filtration.	Filtration and Chlorination.	After Filtration.	Filtration and Chlorination.	
Organism per c.c. at 37° C.	21	0	14	0	5	0	715	9	5		
Organisms per c.c. at 37° C.	206	0	57	0	60	6	2640	10	5		
Organisms indicative of Sewage contamination.	No streptococci or Spores in 100 c.c. Coliform Bacilli in 10 c.c. absent in 1 c.c.	Absent from 100 c.c.	No Streptococci or Spores in 100 c.c. Coliform Bacilli in 1 c.c.	Absent from 100 c.c.	B. Coli in 10 c.c. but not in 1 c.c.	Absent from 100 c.c.	No Streptococci but Spores in 100 c.c. Coliform Bacilli not B. Coli in 1 c.c.	Absent from 100 c.c.	Absent from 100 c.c.		

It will be noticed that the December analysis differed considerably from the others. At the time this sample was taken a great deal of matter in suspension accompanied by micro organisms was present in the water as it reached the filters which were strained in their capacity to deal with such conditions. The safeguard of chlorination is demonstrated by the effective result of the sample of the same water which after filtration had also been chlorinated.

Preliminary storage in settling tanks would prevent the access to the filters of a very large number of organisms which are associated with turbid or flooded states of the river either in winter or summer.

Chemical Analysis.

	RIVER WATER.	DRINKING WATER
Free and Saline Ammonia	0.006	Trace.
Albuminoid Ammonia	0.006	0.001
Chlorine in Chlorides	2.200	2.600
Nitrogen in Nitrates and Nitrites	0.110	0.550
Oxygen absorbed	0.101	0.002
Total solids dried at 100° C.	14,000	40,000
Hardness { Temporary	0.9	12.2
{ Permanent	7.0	16.3
{ Total	7.9	28.5
Appearance	Bright. Many small particles.	Bright. Many small particles.
REMARKS	“ Contains too much fresh organic matter for it to be considered a suitable water for use for drinking purposes.”	“ Of good quality and well suited for use as a public supply.”

Drainage and Sewerage and Closet Accommodation.

There is practically a complete system of water carriage sewage disposal in the Borough.

During the year 1000 yards of new sewers including 360 yards on the Racecourse Housing Estate, were laid.

The number of closets built during the year which were not water closets was 2. In addition there are 41 closets which cannot be connected to the general sewerage system.

Scavenging. Owing to the improved manner in which the tipping of refuse is carried out, and to the appointment of a foreman supervisor it is satisfactory to report that not a single complaint was received by the Health department with reference to nuisance from tips.

Rats, as a result of the continuous baiting of refuse tips have entirely disappeared from some of them and are much less frequently seen at others.

Two large refuse tips which had been in use for some seven or eight years were almost completed at the end of 1928, namely at Rocke's Walk, Belle Vue, and the Maltings, Ditherington.

A new system of refuse collection by a covered motor van with a low loading line, was in contemplation for one half of the town at the end of the year, and a very suitable place for a new tip has been provisionally selected on the low lying land on the north of the Corporation Sewage Farm, adjacent to the river.

If this site is finally approved, measures will have to be adopted to ensure that no refuse can obtain access to the river itself.

Sanitary Inspection of the Area.

The following is a summary of the work carried out by the Sanitary Inspectors during the year :—

1.	Total number of inspections and visits made in connection with all branches of their work	...	...	...	...	5,698
2.	Houses disinfected	...	...	...	...	130
3.	Complaints received and dealt with	...	...	...	...	219
4.	Informal Notices served	...	...	...	...	380
5.	Legal notices served	...	...	...	...	18
6.	Number of notices complied with	...	...	...	...	340
7.	Proceedings before Magistrates	...	...	...	...	1

It speaks well for all concerned that out of 380 informal notices served, 340 were complied with before the close of the year, and also that it was only necessary on one occasion to take proceedings before the Magistrates.

A tabulation of the particulars of the sanitary defects referred to in the above notices is as follows :—

**Details of Sanitary Defects dealt with as a result of routine
Inspection or Complaint.**

Inadequate sanitary accommodation	...	...	...	32
Drains and closets choked or otherwise defective	...	...	...	108
Drains defective and requiring reconstruction	...	...	...	34
Defective roofs, eaves, gutters and pipes	...	...	...	152
„ plaster, dirty walls and ceilings	...	...	...	139
„ paving of floors	...	...	...	119
„ „ „ yards	...	...	...	56
No scullery sinks	...	...	...	73
No proper refuse receptacles	...	...	...	240
Animals improperly kept	...	...	...	17
Accumulations of refuse	...	...	...	12
River pollution	...	...	...	—
Food pantries	...	...	...	124
Light and ventilation	...	...	...	22
Defective water supply	...	...	...	23
Other defects	...	...	...	118
Total				1269

The activities of the Sanitary Inspectors have mainly been in the direction of concentrating on the remedying of defects which can be put right with little delay.

In addition however, a systematic survey of certain districts of the town has been undertaken with reference to the provision of sanitary dust bins.

SANITARY INSPECTION OF FACTORIES, WORKSHOPS and WORKPLACES.

1. Factories, Workshops and Workplaces, etc.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES (including Factory Laundries)	54	—	Nil.
WORKSHOPS (including Workshop Laundries)	194	—	Nil.
WORKPLACES	20	—	Nil.
Total	268	—	Nil.

2. Defects found in Factories, Workshops and Workplaces.

PARTICULARS.	Found.	Remedied.	Referred to H.M. Inspector.	Number of Prosecutions.
Nuisances under the Public Health Acts :—				
Want of Cleanliness	60	60	—	—
Want of Ventilation	—	—	—	—
Overcrowding	—	—	—	—
Want of Drainage of floors	—	—	—	—
Other Nuisances	8	8	—	—
Sanitary Accommodation { insufficient	—	—	—	—
{ unsuitable or				
{ defective	2	2	—	—
{ not separate for				
{ sexes	1	1	—	—
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground Bake- house (Sec. 101)	—	—	—	—
Breach of Special Sanitary requirements for Bakehouses (Secs. 97—100)	6	6	—	—
Other Offences	—	—	—	—
Total ...	77	77	—	—

3. Home Work.

OUTWORKERS' LISTS, Sec. 107.

Nature of Work.	Lists. (Sent twice a year).	Outworkers.	
		Contrac- tors.	Work- men.
Wearing apparel :—			
(1) Making	4	—	8
(2) Cleaning and washing ...	—	—	—
Nets other than wire nets ...	—	—	—
Furniture and upholstery ...	2	—	2
Total ...	6	—	10

There were no failures to send lists of outworkers, nor were there any infringements of the Act.

4. The Registered Workshops in the District are as follows :—

Bakehouses	7	Domestic Workshops ...	21
Brewers	5	Milliners	9
Cabinet Makers	6	Sundry Trades	120
Dressmakers	10	Tailors	15

5. Other Matters.

Class.	Number.
Matters Notified to H.M. Inspector of Factories ...	—
Failure to fix Abstract of the Factory and Workshop Act (Sec. 133)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (Sec.5) {	Notified by H.M. Inspector 4
Underground Bakehouses (Sec. 101) :—	
Certificates granted during the year	nil.
In use at the end of the year	nil.

Smoke Abatement. A circular letter to owners of works in the town whose premises contain tall chimneys of which there are a dozen emitting smoke, was sent during the year calling their attention to the provisions of the Smoke Abatement Act 1926.

Although as has been pointed out in a previous report the major portion of the smoke emitted in Shrewsbury comes from the domestic chimney pot of which there must be approximately 25,000 in the town, it is not possible legally or otherwise to take steps to abate this nuisance which in course of time will automatically disappear with the introduction of smokeless fuel or the adoption of other methods of heating.

The locality of the town which suffers more than any other from almost constant smoke pervasion, is that in the neighbourhood of the railway engine sheds. Many complaints from women who cannot keep their windows open as much or as often as they would like, have been received and yet the law provides no remedy, nor is there it seems any practicable means of abating this nuisance.

For the benefit of the inhabitants of this soiled area it is to be hoped that the electrification of the railway systems is not far off.

Systematic smoke observations have been taken during the year of the various works chimneys, including those under the control of the Corporation and the results of these intermittent observations are set out in table form.

The period of observation was for one hour in each case.

Works or Institution.	Date.	Minutes in the Hour of			Remarks.
		Black Smoke.	Moderate Smoke	No smoke or slight smoke.	
Corporation Sewage Pumping Station	13.7.28.	0	4	56	
Works "A"	13.7.28.	7	12	41	
Works "B"	17.7.28.	17	13	30	
Corporation Water-works	17.7.28.	10	14	36	
Works "B"	4.10.28.	8½	6½	45	
Corporation Water-works	4.10.28.	9	13	38	
Corporation Electricity Works	1.11.28.	0	0	60	
Corporation Electricity Works	2.11.28.	0	6	54	
Works "B"	6.11.28.	25½	8½	26	Warning letter
Corporation Water-works	6.11.28.	10	6	44	
Works "C"	9.11.28.	21	5½	33½	Owner interviewed by M.O.H.
Works "B"	16.11.28.	17	10	33	
Corporation Water-works	16.11.28.	31	20	9	Warning letter
Corporation Baths	17.11.28.	20	10	30	Notified of nuisance.
Works "C"	17.11.28.	24	20	16	Further interview.
Works "D"	23.11.28.	0	13½	46½	
Works "A"	23.11.28.	17	20	23	
Corporation Sewage Pumping Station	23.11.28.	0	3	57	
Works "C"	1.12.28.	1	16½	42½	
Works "E"	1.12.28.	0	15	45	
Works "B"	29.12.28.	0	0	60	
Corporation Water-works	29.12.28.	7½	20½	32	
Works "F"	29.12.28.	0	0	60	

With regard to the various Corporation works it is interesting to note that the Electricity works when mechanical stokers and oil fuel are in use, the smoke nuisance has been very considerably reduced.

Works "A" about whose chimney, complaints were received during the year are considering the adoption of further measures to minimise the nuisance of which they are aware.

An observation skylight for the stoker was installed at the Water works as a result of the receipt of the notification of the nuisance.

PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

Common Lodging Houses. The two registered Common Lodging Houses, controlled by Bye-laws were properly conducted during the year.

It was thought advisable, owing to the prevalence of Smallpox elsewhere to make daily visits, in order to ascertain and examine fresh arrivals. This work commenced in April and was carried on till August. From August until the end of the year visits twice weekly were made.

Houses Let in Lodgings. No action has yet been taken with regard to the framing of Bye-laws for Houses let in Lodgings, and it does not seem likely that steps will be taken in this direction as long as the Rent and Mortgage Interest (Restrictions) Acts are in force, seeing that power to operate any such Bye-laws would not be granted until the above Acts are repealed.

Offensive Trades. Six different types of offensive trade are carried on in the Borough and the following number of premises in the different trades are registered.

Fried Fish Shops	...	13	Fellmongers	...	...	1
Rag and Bone Dealers		3	Tanners	...	...	1
Tripe Boilers and Gut			Curriers and Leather			
Scrapers		2	Dressers			1

All these businesses were conducted satisfactorily and no need for action arose during the year.

Cowkeepers and Milksellers. The number of Cowkeepers and Milksellers registered in the Borough is 92.

These consist of 22 premises where cows are kept and from which milk is retailed ; 24 milkshops from which milk is retailed but no cows kept, and 46 retailers whose premises are outside the Borough.

No gross infringements of the Milk and Dairies Order 1926 have been encountered, but 47 verbal or written notices relating to minor defects have been given, 40 of which were complied with before the end of the year.

The work done in connection with Cowsheds, dairies and milkshops is summarised as follows :—

Number of Inspections during the year	172
Notices verbal or written	47
Defects referred to	80
Notices complied with	40
Proceedings before Magistrates	Nil.

Canal Boats. No boats are registered in the Borough and no inspections were made.

Shops Acts. The provisions of these Acts may be said to be generally very well observed.

Rag Flock Act. No action was taken.

Schools. The sanitary condition of the elementary schools has been improved generally during the last two years by such alterations as are practicable according to the construction of and particular school.

A systematic survey is now made during the Whitsuntide holidays so that repairs and alterations can be effected in August when the schools are closed for the month.

During 1927 and 1928, the ventilation of seven schools has been improved by the fixing of hoppers to existing windows, increased lavatory accommodation has been provided at two schools, dust allaying oil has been applied to the floors of all schools except two, and an hygienic drinking water fountain has been installed at one school.

There are three Infant schools at which drinking water though available near by, is not laid on at the schools themselves.

The procedure for preventing the spread of infectious disease among elementary school children, which has been reported on in previous years is still maintained.

Health Education. There cannot be said to be any definitely organised educational campaign in health matters in Shrewsbury for two reasons.

The one is that with a single Medical Officer and a limited staff, all their energies are devoted to carrying out their routine and statutory duties. The other reason is that in a town of this size and constitution it is extremely difficult to assemble an audience of sufficient size to justify the necessary expenditure of time and money for the work of organisation. For these reasons no attempt has been made to indulge in the flamboyant features of a Health week. Under such circumstances and with the full realisation that health education is of great importance, less showmanlike and perhaps more permanently effective methods are utilised.

Your Medical Officer in his capacity as School Medical Officer lectures to the elder elementary school children at the schools on some health subject at the end of a medical inspection.

Various health leaflets have been drawn up and are given to parents at the School Clinic, Welfare Centre, or in the homes of the people by the Health Visitors, Sanitary Inspectors or Medical Officer to supplement oral advice.

Your Medical Officer of Health has delivered Health lectures to various bodies of persons by request during the year.

In these ways is knowledge on health matters unobtrusively imparted to those in need of it and to those who seek it.

Public meetings at which lectures and cinematograph films were given, by the British Social Hygiene Council under the auspices of the Salop County Council, were organised in April.

Apart from the compulsory attendance of 1600 elementary school children at meetings specially arranged for them, the size of the audience of adults at other meetings was scanty.

HOUSING.

Although the shortage of houses may be described as being sub acute and in view of the fact that a comprehensive survey of future needs in respect of housing was given in last years' report it is not proposed to deal with this question in the present report especially as seems quite likely, the problem of slum clearance may be tackled on national lines in the near future.

It seems best therefore, now that the Corporation as landlord has gained certain experiences to put the question " Quo vadimus ?"

If in the re-housing of families of all descriptions our present methods are satisfactory, future policy can follow the same lines if modifications are desirable, now is the time, when a temporary halt only, may it be hoped, in the erection of Council houses is drawing near, to decide the lines of future action.

More houses are wanted no one can deny, and they are wanted for tenants who vary considerably in their economic status, size of family and social behaviour.

Up till now in the selection of tenants preference has been given to those (*a*) who have children, (*b*) who can afford the rent required according to the type of house, after a careful enquiry and interview has been made by the Housing Selection Sub-Committee.

Subsequent events have shown however that despite the care taken, there are many disappointments encountered. The majority of those selected respond to the uplift and the chances presented to them in their new environment, but there are too many—there will always be some of course—who fail to carry out their agreement or who show by the state of their houses that they are incapable of or indifferent to cleanliness and better habits.

Some examples of disappointing results may be commented on for the information of those who are unaware of the facts.

Failure to pay rent was bringing about such an accumulation of arrears that proceedings had to be issued for recovery which was obtained in many cases. If unemployment or ill health is a cause of non-payment of rent no blame can be ascribed to the defaulter, but mere thriftlessness or culpable evasion requires early and drastic treatment before the arrears mount up to a large sum.

The question here arises as to whether in the future tenants ought to be accepted if their income is such that under ordinary circumstances a strain is imposed on them to meet the rent, a strain that results in a break, with the advent of another child, or the sickness disablement or unemployment of the breadwinner? It would have been unjust if during housing developments of recent years some of the poorest had not been moved from their slum dwellings at the risk of some bad debts, but if future Government

subsidies for slum clearance and re-housing will enable houses to be built and let at 5/- per week rent, the task of Local Authorities in selecting their tenants will be made easier and the ratepayers will not have to pay twice over.

Another disappointing feature of the Council's housing efforts is the breach by many of the agreement which all tenants have to sign, namely not to take in lodgers.

As this report is written there are 73 Council house tenants who have broken this agreement and possess lodgers.

This state of affairs partly illustrates the housing shortage, but at the same time it is undoing what the Council have set out to do, which is to provide 3 bedrooms for each house so that comfort, decency and health can be maintained and overcrowding avoided.

But the most unsatisfactory feature of all is that 1 in 10 of the Council houses contain Vermin most probably imported from the house previously occupied by the family and carried in on their persons, clothing or bedding.

Perhaps in connection with this problem of uncleanness, for vermin are an index of an unclean home, it is appropriate to quote from the recent Report of the Mental Deficiency Committee in which it is stated as follows:—"It is generally accepted that certain diseases and physical defects—defects of growth and nutritive conditions such as undersized stature, subnormal nutrition, rickets and anæmia, certain eye diseases such as blepharitis and conjunctivitis, certain skin affections—are more commonly to be found in slum areas and in association with poor and dirty home conditions than elsewhere, and it is not without interest to know that according to the findings of our investigation the occurrence of these very diseases and defects is many times more frequent among mentally defective children than it is among the general school population. Again a fact which has some bearing on this question and which has been observed elsewhere was noted in one of the investigated areas, namely, that after a slum area has been cleared and the population moved to well designed houses and to generally hygienic surroundings, the very conditions which it is hoped to remedy soon recur and oblige the

Local Authority to intervene to prevent the emergence of a new slum area. It was in such a district as this that our Investigator found one of the highest incidences of mental defect found in any area of comparable size.

If, as there is reason to think, mental deficiency, much physical inefficiency, chronic pauperism, recidivism, are all more or less closely related, and are all parts of a single focal problem, can it be that poor mental endowment, manifesting itself in an incapacity for social adjustment and inability to manage one's own affairs, may be not merely a symptom but rather the chief contributory cause of these kindred social evils ?

If so, then the problem of mental inefficiency, of which mental deficiency is an important part, assumes a yet wider and deeper significance and must indeed be one of the major social problems which a civilised community may be called upon to solve."

Fortunately it is true that all those who live in slum dwellings are not necessarily mentally inefficient or of unclean habits. Side by side in identical houses may be found a housewife who is spotlessly clean and careful and the other who is a slut.

Bad habits acquired or handed down from a previous generation if also associated with inferior mental qualities which are congenital may only be eradicable after the lapse of many years, provided education, persuasion or encouragement are applied.

What is a Local Authority to do with these inefficients ?

They **must** be given a chance to improve and as proper Housing is an undertaking by a Local Authority on behalf of the physical health of its inhabitants, they must be given hygienic houses and surroundings, but where ?

At present some of these inefficients, steeped in unclean ways of living and vermin infested, with whom bad language and obscenity is a normal articulation, are interspersed among those of clean minds and bodies. Are these latter tenants to be subjected to the annoyance of knowing that their children pick up foul words from neighbours to whom an oath or expletive is a convenient mode of expression out of a limited vocabulary ?

The good tenant requires protection from contamination as much as the bad one requires examples of good behaviour, but are the good to suffer on account of the bad if it can be prevented and will the bad ever learn to be good ?

One method—and the suggestion is not a new one, because others have realised the hopelessness of remedying the evil—, is the building of a separate housing colony where such people can be housed decently, but cannot offend others. The children would benefit physically, and those families who show a desire to rise from the rut could be transferred to a different housing estate in course of time.

It was chiefly for such types of tenant that the suggestion was made in last year's report that a woman Housing Manager is required. As a rent collector, supervisor of the internal and external condition of the house, and social worker she would have an intimate knowledge of those who ought to be given further promotion.

It may be objected that to segregate in such a colony is creating or perpetuating class distinctions, but it is held that bearing the Report of the Mental Deficiency Committee in mind, these people are for the most part not conscious of class and are so poorly endowed in their mental capacities that they prefer to be managed rather than manage themselves, and as their mental inferiority is innate even intensive education will bear little fruit.

One concrete suggestion is offered for consideration.

Before a selected tenant is moved into a Council house, facilities ought to be available for the steam disinfection of clothing or bedding which harbour vermin, which could be voluntarily reported or ascertained by inspection or other means.

A steam disinfector situated in the neighbourhood of the Abattoir could not only be used for this purpose but also for disinfection of Smallpox infected bedding.

Building Progress.

The total number of houses erected in 1928 was 194, made up as follows :—

By the Local Authority	{	With State Assistance	120
By other bodies or persons	{	under the Housing Acts	42
By Private Enterprise	...	...	32
<hr/>			
Total ...			194
<hr/>			

Closure of Unfit Houses.

Altogether 29 unfit dwelling houses were closed during the year, 24 as a result of Closing Orders and 5 as a result of negotiations between the owners and the Health department. This is the largest number of houses closed in any one year since the war. All the tenants with three exceptions were re-housed in Council houses.

In theory it looks as if it ought to be an easy matter, having previously scheduled houses for closure on account of their unfitness for human habitation, to select a court or a row of them and close such a group at one and the same time.

In practice many obstacles are encountered. In one house of a court may live an aged couple by themselves ; in the next house a large family who cannot afford the rent of a Council house ; in yet another house there may be two families in occupation for each of whom another house would have to be found.

It will be seen therefore, as only a limited number of Council houses were allotted by the Housing Committee to the Public Health Committee for re-housing tenants displaced from closed houses, that the policy of completely wiping out unhealthy courts could not be carried out invariably.

Consequently the Public Health Committee approached the various owners of small house properties in the town seeking their co-operation. It was pointed out to these owners that the Corporation as compared with any individual owner, probably being aware of a greater number of cases which on health grounds owing to overcrowding or the unfitness of the house ought to be given priority of consideration, sought as a public service the help and co-operation of these owners who were willing to enter the scheme.

The scheme embraced the formation of a roll of owners who were willing to consider the acceptance, but were under no obligation to accept a tenant or tenants nominated by the Housing Selection Committee or the Public Health Committee. In this way if a large sized family were given a Council house, the Housing Selection Committee could approach the owner of the house vacated by the tenant, and ask him to accept a smaller family who might perhaps be in apartments or living and sleeping in one room. On the other

hand it was also possible in an effort to clear and close a court to ask another owner to accept as tenants an old couple who might be living in one of the houses of that court and who were not suitable as tenants of a three bedroom Council house. It is gratifying to report that 25 owners consented to have their names placed on the roll and that during the year the scheme was operated as outlined above.

There are now approximately 216 houses which are condemned and waiting to be closed, but of this number there are undoubtedly some which could be spared and remain as dwelling houses during the shortage which will exist for some time to come, **if it could be ensured that they were only occupied by old couples.**

As owners may die and the property change hands or tenants may without the owner's consent allow young children to live in a house, it is not absolutely safe for a Local Authority to defer closure, when it is possible, on the grounds that the house would do for an old couple.

Parliament has decreed that skimmed milk must be labelled "Unfit for Babies"; if a house which though not fit for the rearing of a young family, yet just fit enough for the existence of an old couple could be legally scheduled as "Unfit for children," many owners in this town might by keeping such houses weatherproof and sanitary be spared the financial loss which closure and demolition entail.

Old people do not require to the same extent the stimulating effects of abundant fresh air and sunlight, so essential for the proper growth of the young; having weathered the storm of life for three score years or so they might well spend the sunset of their days in the shadowed seclusion of a court.

Number of New Houses erected during the year :—

(a) Total (including numbers given separately under (b)). 194

(b) With State assistance under the Housing Acts :

(i) By the Local Authority 120

(ii) By other bodies or persons 42

1. Inspection of Dwelling-houses during the Year :—

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	554
(2) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	Nil.
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	Nil.
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	480

2. Remedy of Defects during the Year without Service of formal Notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	420
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3. Action under Statutory Powers during the Year :—

A.—Proceedings under section 3 of the Housing Act, 1925.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ...	Nil.
(2) Number of dwelling-houses which were rendered fit after service of formal notices	Nil.
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	Nil.

B.—Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	... ..	18.
(2) Number of dwelling-houses in which defects were remedied after service of formal notices.		
(a) By owners	... ..	10
(b) By Local Authority in default of owners	...	Nil.

C.—Proceedings under sections 11, 14, and 15 of the Housing Act, 1925.

(1) Number of representations made with a view to the making of Closing Orders	... ..	24
(2) Number of dwelling-houses in respect of which Closing Orders were made	... ..	24.
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	...	1
(4) Number of dwelling-houses in respect of which Demolition Orders were made	... ..	Nil.
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	... ..	Nil.

INSPECTION AND SUPERVISION OF FOOD.

Milk Supply. The gradual education of the farmer and the dairyman coupled with an enlightenment of the public, who are aware not only of the food value of milk, but of its possible dangers is resulting in a milk supply of better quality in this town.

Generally speaking, as a result of visits paid to the premises of milk producers situated in the Borough, the requirements of the Milk and Dairies Order 1926 are being complied with.

It is interesting to note the great improvement in the cleanliness of the milk since 1926 when special tests were first employed to detect dirt in milk, at the time of milking.

Formerly crude dung, straw and other debris were obtained on the filter pad of the testing instrument, now, the filter pad is very often quite clean, and in the worst cases only showing small specks of contaminating material.

From another point of view the milk supply is better, in that during the year, although 66 samples were submitted for chemical and dirt analysis, it was not found necessary to prosecute for adulteration in a single case.

Thus the milk consumed in Shrewsbury during the year, was cleaner and of a better average standard of quality than in any previous year.

To ensure the purity of the milk supply however, it is essential to take steps in another direction as well as those enumerated above, and that is to ascertain as to whether Tubercle bacilli are present.

During the year 10 samples of milk were submitted for bacteriological examination and of these 2 were found to contain living Tubercle bacilli. As a result of the appropriate action taken the offending cow in each case was discovered and slaughtered under the Tuberculosis Order 1925.

During the coming year, it is proposed to extend this branch of the supervision of the milk supply.

The following table shows the number of milk samples submitted for chemical analysis, the result of the analysis and the action taken.

Article.	Number of samples.		Result of Analysis.	Remarks on samples returned as "Not genuine."
	Formal.	Informal.		
New Milk	53	13	Formal { 49 genuine. 4 not genuine.	<p>1. Suspicious quality. 8.4% non fatty solids. Re-sampled and found genuine.</p> <p>2. Poor quality, but not sufficient to justify prosecution. Re-sampled and found genuine.</p> <p>3. Ditto.</p> <p>4. Deficient of approximately 13% of fat. "Appeal to cow" sample of mixed milk was just up to limit in fat. (See 6 and 7 below).</p>
			Informal { 9 genuine. 4 not genuine.	<p>5. Poor quality, re-sampled and found genuine.</p> <p>6.) Below limit in fat. These were "appeal to cow" samples taken as a result of analysis of No. 4 above.</p> <p>7.)</p> <p>8. Deficient of 23% of fat. Re-sampled and found genuine.</p>

As regards the sample which was deficient of approximately 13% of fat, the evidence obtained, which prompted the decision that legal proceedings were not justifiable, shows that in a **small** herd of cows, the variation in the fat content of the milk of individual cows, especially if one or more of those cows are worn out with lactation or improperly fed, will affect the whole milk supply of that herd, so that a sample of mixed milk from all the cows shows a low fat content on analysis. The following short account illustrates this particular situation.

The standards for milk laid down by the Sale of Food and Drugs Acts are, for fat 3%, for non fatty solids 8.5%.

The original sample which on analysis proved to be deficient of approximately 13% of fat gave the following analysis :

Fat 2.6%. Non fatty solids 8.8%. Total Solids 11.4%

At the time this sample was taken, the animals which were Friesian cows were on young grass and were scouring badly.

Four days after the original sample was taken, and when the result of the analysis was known, individual samples from each cow were taken together with a fresh sample of the mixed milk of the herd, with the following results.

			Non fatty	
		Fat.	solids.	Total solids.
Standard required	...	3.0	8.5	11.5
Original sample	...	2.6	8.8	11.4
Cow A	...	2.9	9.1	12.0
Cow B	...	2.3	8.7	11.0
Cow C	...	3.0	9.0	12.0
Cow D	...	3.3	9.1	12.4
Mixed sample of A,B,C,D,		3.0	8.7	11.7

—It will be seen that the cows A and B were yielding milk below the limit in fat, Cow C was just up to the limit and Cow D was only slightly above the limit, so that the resultant mixed sample was only just up to the limit.

It is obvious of course, that no adulteration was being practised, so the milk producer was advised to alter the feeding conditions.

The other case of a serious deficiency of 23% of fat was also investigated, a subsequent sample being found to be genuine though only just up to the presumptive limit in fat.

Here again, the milk producer, the owner of a large herd of Red Poll cows, was above suspicion, and was himself aware of the poor quality milk his cows were yielding at that period of the year from the results of monthly analyses performed privately for him.

He attributed the low fat content to a long spell of dry weather and perhaps too, the change from home produced foods to a compound cake.

Milk (Special Designations Order) 1923. No licenses or supplementary licenses for the sale of milk under special designations have been issued.

Both Grade A Tuberculin tested and Grade A milk are on sale in the town.

The demand for these graded milks is increasing.

A sample of the Grade A Tuberculin tested milk on sale in the town was submitted to the Public Analyst for bacteriological investigation.

It was found to contain only 1000 colonies per c.c. and B. Coli were absent. Presuming that Tubercle Bacilli were of course also absent, this Grade A Tuberculin tested milk is above the standards required for Certified milk which is the highest grade of designated milk.

Meat. With the exception of two small private slaughterhouses all slaughtering is carried on at the Public Abattoir under the direct supervision of the whole time superintendent who is a qualified Meat Inspector and inspects all slaughtered animals.

Mention has been made in previous reports as to the inadequacy of lairage accommodation at the Abattoir, and as the work is increasing, which the following figures show :

Year.	Number of animals slaughtered.		
1925	21,352
1926	22,001
1927	25,075
1928	26,501

the need for the extra accommodation required is becoming more urgent. Steps were taken during the year to deal with this question, by the purchase of property adjoining the Abattoir, sanctioned by the Ministry of Health as a result of a local enquiry, for the purpose of providing an extension of the present buildings.

The work carried out at the Abattoir during the year was as follows :—

Public Abattoir.

Animals slaughtered.

Beasts	...	...	3,067
Calves	...	...	1,351
Sheep and lambs	...	...	14,429
Pigs	...	...	7,654
Total			26,501

The following casualty carcasses were also brought in for inspection.

Beasts	...	...	30
Calves	...	...	14
Sheep and lambs	...	...	158
Pigs	...	...	64
Total			266

Diseased and unsound conditions found in the animals dealt with, caused the detention and surrender for destruction of a total weight in carcasses and offal of 10 tons 11 cwts. 2 qrs. 17 lbs., details of which are given in the following table.

				Carcases.	Offals.	Totals in lbs.
Beef	...	...	lbs.	8359	4196	12555
Veal	...	...	„	684	108	792
Mutton and Lamb	...	...	„	2678	709	3387
Pork	...	...	„	5415	1556	6971
Private slaughterhouses :				Carcases.	Offal.	
Mutton	...	...	lbs.	45	7	
Pork	...	...	„	98	10	

Particulars of the diseased conditions found are set out in the following table :—

Disease.		Cattle.	Calves.	Sheep & Lambs.	Pigs.
Tuberculosis	Localised	27	—	—	142
	Secondary	2	—	—	—
	Generalised	8	—	—	23
Hydræmia	...	—	—	14	2
Sepsis	...	1	3	7	5
Swine Erysipelas	...	—	—	—	6
Swine Fever	...	—	—	—	4
Black Quarter	...	3	5	1	—
Enteritis Fever	...	—	3	—	—
Parturient Fever	...	1	—	—	—
Uræmia	...	1	—	—	—
Septic Mastitis	...	—	—	3	—
Emaciation	...	—	—	1	4
Tetanus	...	—	—	3	—
Johne's Disease	...	3	—	—	—
Anæmia	...	—	—	1	—
Miscellaneous conditions	...	3	1	34	2

It was felt by the Public Health Committee that on the discovery of Tuberculosis in a slaughtered animal, it was not sufficient to condemn and destroy the carcase and let the matter end there. Consequently it was decided to inform the owners from whom such animals might have been purchased by dealers or local butchers.

The Abattoir Superintendent sends a weekly return to the Medical Officer of Health of slaughtered animals found to be Tubercular, together with (if ascertainable) the name of the owner from whom the animal was purchased. A letter is then sent to the late owner pointing out in the case of cows, that as it is possible that the animal in question may have infected other cows in the herd, or have contracted the disease from an unsuspected animal,

it is desirable, for his own benefit, to prevent the possible spread of infection in his herd, and also for the protection of the community who may be consuming infected milk from an unsuspected Tubercular animal, that he should examine his herd thoroughly, and if suspicious about any animal call in a veterinary surgeon.

In the case of pigs, a letter somewhat similarly worded, pointing out that pigs may be infected with Tuberculosis by drinking infected whey or skimmed milk from unsuspected Tubercular cows, is sent.

It is satisfactory to report, as a result of these letters, action on the lines indicated have been taken in several instances.

Other foods. Shops where food is sold or premises on which food is prepared for sale, as well as the General Market, are visited regularly, and notices drawing attention to defects have been served.

The following foodstuffs were surrendered voluntarily as unfit for human consumption and were destroyed :— $44\frac{1}{2}$ stone of Cod fish, 1 cwt. of Herrings, 6 boxes of Kippers and 4 cases of Canned Fish.

**Sale of Food and Drugs Acts 1875—1927 and Public Health
(Preservatives, etc., in Food) Regulations 1925—1927.**

Besides the 66 samples of milk, the results of the analysis of which have been set out above, 41 other samples of foodstuffs were submitted for analysis under the above Acts or Regulations, as set out in the following table.

Articles.	Number of Samples.		Result of Analysis.	Remarks.
	Formal	Informal.		
Sausage	1	8	Formal. 1 Genuine. Informal { 7 Genuine. 1 Not „	The “not genuine” informal sample contained 70 parts per million of Sulphur Dioxide, was unlabelled and the notice in shop obscured. Vendor’s attention drawn to infringement of Regulations.
Cheese	2	1	Genuine	
Butter	2	—	„	
Lard	—	2	„	
Cocoa	—	1	„	
Coffee	1	1	„	
Tapioca	4	—	„	
Selt-Raising Flour	4	—	„	One sample gave reactions that slight traces of improvers were present, but the amount was very small.
Vinegar	3	—	„	
Mincemeat	3	1	Genuine and free from preservatives.	
Cream	—	7	Genuine	Fat content: 59%, 65%, 50%, 64%, 67%, 60%, and 41%.

Another sample of food not included in the above list was analysed for a different purpose. At the present time a popular article of diet is cheese sold in boxes containing portions wrapped in “silver paper.” It was noticed that at times, presumably if the boxes of cheese had been in stock a long time, the cheese portion when unwrapped from its “silver paper” showed a greyish discolouration of the surface. As it was thought that this discolouration might be due to metallic contamination such as lead or tin, an analysis was performed.

The analyst in his report stated "The wrapping material was found to consist of practically pure tin, and free from lead. Some dark discolouration was noticed on the surface of the cheese, and tests were carried out on this to detect any poisonous metals if present, but with the exception of a very minute trace of tin, the results were negative, Lead and Arsenic in particular being absent."

Public Health (Condensed Milk) Regulations, 1923 and 1927.

No action was taken.

Public Health (Dried Milk) Regulations, 1923 and 1927.

No action was taken.

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES.

Monthly Incidence of Infectious Diseases Notified 1928.
(Not including Tuberculosis).

Month.	Diphtheria.	Erysipelas.	Ophthalmia Neonatorum.	Pneumonia.		Puerperal Fever.	Puerperal Pyrexia.	Acute Poliomyelitis.	Enteric Fever.	Scarlet Fever.
				Prim-ary.	Influ-enzal.					
Jan. ...	2	—	I	—	—	—	I	—	—	5
Feb. ...	2	—	—	—	—	—	I	I	—	19
March	—	—	—	I	2	—	—	—	—	14
April	—	—	—	I	3	—	—	—	—	5
May ...	—	—	I	I	—	—	2	—	I	5
June ...	—	2	—	I	I	—	—	—	—	5
July ...	—	I	—	—	—	I	I	—	—	9
Aug. ...	—	—	I	—	—	—	—	—	—	11
Sept. ...	—	3	—	I	—	—	—	—	—	3
Oct. ...	I	2	—	I	—	—	I	—	2	18
Nov. ...	I	I	I	I	—	I	—	—	—	18
Dec. ...	3	I	—	—	—	—	—	—	—	13
Totals	9	10	4	7	6	2	6	I	3	125

There were no cases notified of the following notifiable infectious diseases, Smallpox, Cerebro-Spinal Meningitis, Encephalitis Lethargica, Malaria, Dysentery.

There were 125 cases of Scarlet Fever notified compared with 110 in 1927. There were no deaths from this disease.

Of the 3 cases of Enteric Fever, one was a case of Typhoid and the other two Paratyphoid B.

The case of Typhoid occurred in a nurse at the Isolation Hospital who was nursing a case admitted from Montgomeryshire.

The two cases of Paratyphoid B. were fully investigated and it was ascertained in both cases that during absence from Shrewsbury they had resided in areas in which at the time or subsequently other cases of Paratyphoid occurred.

All three cases recovered.

There was a slight increase in the incidence of Diphtheria, although the number of cases notified only amounted to 9. The comparative freedom from this disease was remarked upon in last year's report in which it was intimated that an outbreak on a large scale may be expected at any time.

A small outbreak occurred at one of the Children's Homes belonging to the Atcham Board of Guardians, full details of which including the steps taken to deal with it, are given in the report of the School Medical Officer for the year 1928.

In this outbreak, 4 cases were notified and removed to Hospital 2 of whom died, and 11 carriers of the Diphtheria Bacillus were discovered and isolated.

It has been decided to approach the Board of Guardians and ask them to consider the advisability of protecting the children under their charge by active immunisation.

The death rates per 1,000 population from the principal infectious diseases are given in the following table for England and Wales, etc., during 1928.

	Enteric fever.	Small- pox.	Measles.	Scarlet fever.	Whooping Cough.	Diph- theria.	Influ- enza.
England & Wales	0.01	0.00	0.11	0.01	0.07	0.06	0.19
107 Great Towns	0.01	0.00	0.15	0.02	0.09	0.09	0.17
156 Smaller Towns	0.01	0.00	0.08	0.01	0.06	0.08	0.21
SHREWSBURY	0.00	0.00	0.03	0.00	0.06	0.05	0.34

NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS) DURING THE YEAR 1928.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.														NUMBER OF DEATHS.														Total Cases removed to Hospital.	
	At all Ages.	At Ages—Years.													At all Ages.	At Ages—Years.														65 & Upwards.
		Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	Under 1	1 to 2		2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65						
			1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65		1 to 2		2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65						
Small-pox ..	...	...	...	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Diphtheria...	9	...	...	...	..	8	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	9
Erysipelas ...	10	..	...	...	...	3	...	...	...	1	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Scarlet Fever ..	125	1	...	3	5	67	24	6	14	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	106
Typhus Fever ..	...	...	...	...	...	..	...	..	...	..	...	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	3	...	...	...	..	1	1	..	1	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Puerperal Fever ..	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Puerperal Pyrexia ..	6	..	...	...	...	...	...	...	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Ophthalmia Neonatorum	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Poliomyelitis ...	1	..	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia, Acute Primary	7	...	...	...	1	1	...	...	2	1	2	...	...	...	...	...	...	...	...	...	1	1	1	1	1	4	...	...
Do. Acute Influenzal	6	...	...	1	...	1	...	1	1	...	2	...	..	5	..	...	...	...	...	...	...	1	4	...	...	...	...	...
Cerebro-Spinal Fever...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Polio-Encephalitis ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	173	5	—	3	4	6	70	37	7	23	8	8	2	21	4	1	...	1	1	...	2	...	1	2	5	4	...	125		

NON NOTIFIABLE ACUTE INFECTIOUS DISEASES.

Compared with recent years there was a general lessening of the incidence of non-notifiable infectious diseases during 1928.

Measles which had been epidemic in the autumn of 1927 died down at the end of the first quarter of the year.

One death, that of a female infant, was brought about by this disease during the year.

There were 2 deaths attributed to Whooping cough, both of them being children under school age.

Of other non-notifiable infectious diseases, there were 19 cases of Mumps, 92 of Chicken pox among elementary school children.

There were no cases of German Measles throughout the year.

No epidemic of Influenza occurred. There were 11 deaths certified as due to Influenza and 9 of these were of persons over the age of 45 years.

Efforts are made to control these non-notifiable infectious diseases among the elementary school population, by exclusion from school of the sufferers and their immediate close contacts, both classes being examined at the School Clinic before being allowed to return to school.

It was not found necessary to close a single elementary school on account of infectious disease during the year.

THE ISOLATION HOSPITAL.

The Isolation Hospital of the Shrewsbury and Atcham Joint Hospital Board is situated 2 miles from the centre of the town in approximately 5 acres of grounds.

The accommodation for patients has been increased by 4 beds, so that in all 37 patients can now be dealt with.

The extra 4 beds have been provided as the result of the erection of Combined Convalescent Shelter and Overflow ward.

This structure being entirely open on its south side can be utilised, as it has already been, for various purposes.

Firstly it serves as a playground under cover with fresh air conditions for convalescent children who are up and about. Secondly it is used as a ward in which patients who are still in bed, can be nursed in open air and sunlight by drawing beds to the front of the shelter. Thirdly it has been used as an isolation ward for secondary or other infections. Fourthly at times of pressure on bed accommodation it can be used as an ordinary ward.

Patients nursed in this open air shelter since the middle of the year when it was erected, have derived considerable benefit.

Patients are received into the Hospital from certain localities in the County of Salop, and from the County of Montgomeryshire, as well as from the area served by the Joint Board which has an approximate population of 54,000.

Cases Admitted. During the year 169 cases were admitted, 124 from Shrewsbury, 14 from the Atcham Rural District, 19 from the County of Salop, 11 from Montgomeryshire and 1 from Barmouth.

The respective number of cases, the diseases for which they were admitted and the locality from which they were sent are set out in the following table.

	Scarlet fever.	Diph-theria.	Typhoid fever.	Paratyphoid Fever.	Erysipelas.	Chicken Pox.
SHREWSBURY	106	14	1	1	2	—
Atcham Rural District	11	3	—	—	—	—
Bishop's Castle	1	—	—	—	—	—
Ludlow	—	2	—	—	—	—
Dawley	1	1	—	—	—	—
Wellington	7	1	—	—	—	—
Church Stretton	1	—	—	—	—	—
Shifnal	1	—	—	—	—	—
Newport	1	1	—	—	—	—
Hodnet	1	—	—	—	—	—
Oakengates	—	—	1	—	—	—
Montgomeryshire	2	8	1	—	—	—
Barmouth	—	—	—	—	—	1
Total	132	30	3	1	2	1

Revised Diagnosis. Of the 169 cases admitted, 9 after due observation were found to be suffering from conditions other than or in addition to that for which they were admitted, the revised diagnosis being as follows.

REVISED DIAGNOSIS.	ORIGINAL DIAGNOSIS.
Tonsillitis (4 cases).	Diphtheria.
Tonsillitis (2 cases).	Scarlet Fever.
Scarlet Fever and Erysipelas.	Scarlet Fever.
Diphtheria and Vincent's Angina.	Diphtheria.
Pneumonia.	Typhoid.

Treatment.

SCARLET FEVER. The 106 Shrewsbury cases were, in the large majority, mild in type and no deaths occurred.

Scarlet fever Antitoxin has been used in the severer or septic types of the disease, whenever the patient has been admitted at an early stage.

DIPHTHERIA. Owing to the fact that medical practitioners are often not called in sufficiently early by the parents, cases that are eventually admitted to hospital are received at a time when the tissues of the patient are saturated with toxins so that even despite energetic antitoxin treatment, although it may be possible to stem the further progress of the disease, the damage already done cannot be undone.

As a rule, antitoxin treatment has been given by practitioners as soon as the diagnosis has been made and the amount administered is generally 8,000 units. Though it is a good rule never to give less than this amount in a definite case of Diphtheria, it is often advisable, in the present state of our knowledge as to the efficacy of antitoxin treatment, to give much larger doses of antitoxin in moderately severe cases, especially in those cases in which long distances have to be travelled by ambulance.

Of the 30 cases admitted as Diphtheria, 14 came from Shrewsbury and of this number 5 were not confirmed as being cases of clinical Diphtheria. Of the 9 cases treated for Diphtheria 2 died of a very virulent form of the disease.

One severe case of Diphtheria admitted from Newport despite large doses of Antitoxin did not clear up rapidly and it was found on bacteriological examination that besides the Diphtheria bacillus he was also infected with the organisms of Vincent's angina. An arsenical preparation in the form of Sulfarsenol which has been used on previous occasions with marked success in the treatment of Vincent's angina, was given and resulted in a rapid recovery of the patient.

TYPHOID. One case of Paratyphoid fever ran a mild and uneventful course, with complete recovery.

A severe attack of Typhoid Fever was contracted by one of the nurses who was nursing a similarly severe case. Both eventually recovered.

Complications. Of the 132 Scarlet fever patients, 48 suffered from different complications which prolonged their convalescence and retarded their discharge. They were mostly of a light nature.

Complication.	No. of cases.	Complication.	No. of cases.
Secondary Tonsillitis	... 3	Encephalitis	... 1
Pneumonia	... 1	Cervical Adenitis	... 7
Nephritis	... 3	Rhinorrhœa	... 14
Otorrhœa	... 11	Axillary abscess	... 1
Albuminuria	... 4	Quinsy	... 1
Pharyngitis	... 1	Rheumatism	... 1

Of the 30 Diphtheria patients multiple paralyses occurred in one case, and one case developed cardiac irregularity.

Operations. The work done by the Ear, Nose and Throat Specialist together with other necessary operations under a general anæsthetic were as follows:—

Removal of Tonsils and Adenoids	4 cases.
Mastoid operations	... .. 2 „
Secondary mastoid sutures	... .. 3 „
Tracheotomy	... .. 4 „
Laparotomy for peritonitis	... .. 1 case.

Under the scheme whereby the above specialist is appointed the Medical Superintendent has been able to consult with him in 21 cases.

Return Cases. There were 4 “return cases” of Scarlet Fever or 3% of the total number of Scarlet Fever patients, compared with 4% last year.

There were no “return cases” in respect of Diphtheria.

Duration of stay. Mild cases of Scarlet Fever without any complications are discharged from hospital at the end of four weeks from the day of onset of disease.

The average duration of stay of patients was as follows :—

Scarlet fever	...	30 days.
Diphtheria	...	23 „
Typhoid	...	47 „
Erysipelas	...	11 „

One severe case of Scarlet Fever remained in hospital for 96 days and one severe case of Diphtheria for 82 days.

Cross Infection. Bed spacing and free through ventilation of the wards all the year round combined with aseptic nursing are the factors which help to reduce the chances of spread of secondary infections, imported by patients or carried from one ward to another.

One child considerably debilitated by Septic Scarlet fever and Mastoiditis for which an operation was performed, subsequently developed Laryngeal Diphtheria. Despite Tracheotomy and other treatment she died.

In the first quarter of the year there was an outbreak in a Scarlet fever ward of Tonsillitis due to Hoffmann's Bacillus, with which were also associated scanty Diphtheria bacilli.

The clinical picture was not that of Diphtheria, though to prevent the possible onset of that disease prophylactic injections of Antitoxin were given and isolation put into force.

The cross infection of these patients slightly prolonged their convalescence.

Health of Staff. The health of the nursing and domestic staff generally was very good indeed, except for three unfortunate occurrences. One nurse as a result of a bad cold developed

Mastoiditis and had to be operated on. A new probationer nurse developed Scarlet fever shortly after commencing duty, and a staff nurse contracted Typhoid Fever from a patient she was nursing. All three recovered and returned to duty.

During the year new comers on the staff were Schick tested and, where necessary, protected against Diphtheria by active immunisation. Of 8 tested 6 were Positive and 2 Negative.

The staff were also inoculated against Typhoid and Paratyphoid Fevers.

Deaths. There were 8 deaths during the year, the cause of death being due to Diphtheria in 4 cases.

One child who developed Scarlet Fever subsequent to an abdominal operation before admission, died of peritonitis.

One child admitted with Mastoiditis due to Scarlet Fever, was operated on, but developed Meningitis from which she died.

A severe case of Scarlet Fever also died.

The other death was that of a woman admitted as a case of Typhoid fever, no clinical or other evidence of which could be found, who died of Pneumonia.

BACTERIOLOGICAL WORK.

The following work was carried out during the year.

		Number.	Positive.	Negative.
Diphtheria	Swabs from Isolation Hospital	606	33	573
	„ „ School cases and contacts	98	7	91
	„ sent by Local Doctors	84	3	81
Tubercle				
Bacillus	Specimens of sputa examined	13	1	12
Vincent's Angina	... ..	5	1	4

The undermentioned specimens from the Borough and paid for under the County Council Scheme were sent to the University of Birmingham for examination.

		Positive.	Negative.
Sputum for Tubercle Bacillus	...	8	29
Swabs for Diphtheria	... ..	15	164
Widal's reaction for Typhoid fever		1	8

Bacteriological investigations of a simple nature only, are undertaken in the Borough Laboratory and consist chiefly of the culture and examination of Diphtheria swabs, examination of specimens of sputa for Tubercle Bacilli, specimens of blood from the Abattoir for Anthrax, and bacteriological culture of water samples for the purposes of bacterial counts.

DISINFECTION.

The methods of disinfection after infectious disease were fully described in last year's report.

There is no cleansing or disinfecting station in Shrewsbury which would be available for the cleansing of Verminous persons under Section 48 of the Public Health Act 1925, and in Shrewsbury in many cases it would be difficult to operate effectually Section 46 of the same Act. This section empowers the taking of steps to destroy or remove vermin in verminous houses. Owing to the age and construction of many of the old houses in the town, nothing short of demolition of the vermin infested houses would effect a radical cure.

It has been mentioned in another part of this report that verminous children have been found in 79 newly erected Council houses.

Although steps are taken to get such children cleansed by the parents themselves, the infected clothing and bedding which constitute the source of repeated re-infestation cannot be dealt with in the absence of a Cleansing station at which such materials could be treated.

Appended is a summary of the work done by the Sanitary Inspectors with respect to Infectious diseases.

Visits made in connection with Infectious diseases	244								
Cases removed to Hospital by Inspectors	... 50								
Disinfection carried out after	<table><tr><td>Tuberculosis</td><td>40</td></tr><tr><td>Scarlet fever</td><td>20</td></tr><tr><td>Diphtheria</td><td>4</td></tr><tr><td>Other diseases</td><td>3</td></tr></table>	Tuberculosis	40	Scarlet fever	20	Diphtheria	4	Other diseases	3
Tuberculosis	40								
Scarlet fever	20								
Diphtheria	4								
Other diseases	3								
	67								

TUBERCULOSIS.

There were 22 deaths from all forms of Tuberculosis during 1928, which gives a death rate from Tuberculosis of 0.78 per 1,000 population.

Of these 25 deaths 22 were due to Pulmonary Tuberculosis or Phthisis, which gives a Phthisis death rate of 0.68 per 1,000 persons living.

The following table gives the number of new cases of Tuberculosis notified during the year, together with the deaths.

Tuberculosis.

Age Periods.	New Cases.				Deaths.			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0 to 1	—	—	—	—	—	—	—	—
1—5	—	1	3	2	—	1	1	—
5—10	1	1	2	2	—	—	—	—
10—15	—	2	—	1	—	1	—	—
15—20	1	3	1	1	1	—	—	—
20—25	1	4	—	—	1	2	—	—
25—35	5	5	—	—	2	2	—	—
35—45	3	4	3	—	1	5	1	—
45—55	3	1	—	1	2	1	—	1
55—65	2	—	—	—	1	—	—	—
65 and upwards ...	1	—	—	—	2	—	—	—
Totals ...	17	21	9	7	10	12	2	1

Of the 25 deaths from Tuberculosis 5 or 20% were not notified before death.

Public Health (Prevention of Tuberculosis) Regulations, 1925.

It was not found necessary to take any action under the above regulations.

Public Health Act 1925, Section 62.

This section deals with the compulsory powers of removal to hospital of infectious persons suffering from Pulmonary Tuberculosis, when such persons' accommodation prevents the adoption of proper precautions to guard against the spread of infection, and in which there is serious risk of infection to other persons.

Preliminary steps were taken to enforce this section of the Act in one case under the following circumstances.

A child suffering from active and extensive Pulmonary Tuberculosis was sleeping in the same and only bedroom of a condemned house with her father, mother and two elder sisters. The parents refused to allow the child to be removed to a Sanatorium which was strongly advised. As a result of pressure being brought to bear by informing the parents of the legal powers existing, they were eventually persuaded to allow the child to be removed. The child died very shortly afterwards, and the family were re-housed in a new Council house.

Re-Housing of Tubercular Families. Co-operation has been effected between your Medical Officer of Health and the County Council Tuberculosis Officer for this district. The Medical Officer of Health knows the housing conditions of notified cases of Tuberculosis, the Tuberculosis Officer knows which cases on clinical grounds combined with their present environment points to the necessity for priority of consideration with regard to re-housing.

As a result of this co-operation 6 families have been accepted as tenants of newly erected Council houses by the Housing Committee.

This translation to a healthier environment which in every case includes a garden, will not only benefit the actual sufferers, but will help to fortify the individual resistance of those members of the family who necessarily have to be in close contact.

The Prevention and Treatment of Tuberculosis. There is no intention under this heading of discussing this wide subject except from one important view point, and that is in connection with the prevention of the spread of the disease by those sufferers who are under "treatment" in their own homes.

The institution of Sanatoria has not been by any means entirely successful in dealing with the problem of Tuberculosis for sundry reasons, some of which may be mentioned.

Too often is it the case that Sanatoria must necessarily be situated away from the centres of population. Home is home even to a consumptive and neither he nor his family care to be separated by a distance which is such that the visiting of the sufferer entails not only loss of time but money for the visiting relations. If under these circumstances, despite the creation of a happy atmosphere in the Sanatorium itself, visiting by relations cannot be as frequent as the patient might like or the regulations permit, the patient may tend to become homesick.

This is very often the reason why patients forsake the advice of those in charge of them and return to their homes after a comparatively short stay.

Thus some of the good that has been done is undone, and they return in many cases in an old town like Shrewsbury to a house that is unhygienic and minus a garden or a third bedroom where some form of isolation might be practised.

The solution seems to be that for **advanced and active** cases of Phthisis, not suitable for Sanatorium treatment or unwilling to submit to it and those who are potentially dangerous to those in immediate contact with them, small open air wards of simple construction or shelters, should be provided as annexes to existing centrally situated hospitals or institutions.

In this way, patients though separated from their families would not be divorced from their native heath and could remain under watchful medical supervision, be visited more easily by their relations, and at the same time be prevented from spreading infection in massive doses.

The operation of that Section of the Public Health Act of 1925 to which reference has already been made would not be so encumbered with legal obstacles, if a “ **suitable** hospital or institution is available.” The phrase “suitable hospital” might easily be interpreted by a court as not including a hospital that was not situated within a reasonable distance of the patients home—the word “reasonable” also being open to various interpretations within wide limits.

It might be agreed by some that it is undesirable to create sanctuaries for dying consumptives, who, knowing that they **may** be leaving home to die, would dread the thought of admission to such a place, but all would not die and one might as well argue that it is necessarily fatal to enter a Cancer Hospital or a Home for Incurables.

With modern education and enlightenment public opinion is gradually coming to realise that personal sacrifices ought to be made for the benefit of the community ; in time, the relatives of consumptives subduing their sentiments may see that it is in their own interests as well as those of the community who might have to support them, should they too contract the disease, to help to persuade and if necessary, press the patient to seek the segregation provided.

Assurance would have to be given in a scheme of this sort that those entering these colonies would be kept happy and occupied and not merely nursed and fed and regarded as hopeless.

A colony might well be established as an attachment to the Isolation Hospital without creating overhead charges or overloading the present administration.

MATERNITY AND CHILD WELFARE.

The work of this service comprises the following : (1) Home visiting of Expectant Mothers, Infants and Children up to the age of 5 years by the two Health Visitors, (2) the provision of an Infant Welfare centre, (3) the provision of an Ante Natal Clinic, (4) the provision of Maternity beds, (5) provision for the treatment of Puerperal Fever or Pyrexia, (6) assistance to expectant or nursing mothers, infants and children up to 3 years of age in the form of milk grants, (7) Dental treatment for mothers and young children (8) Orthopædic treatment for children up to 5 years of age, (9) provision for the treatment of defects of eye, ear, nose or throat in infants and young children.

This service has developed gradually and the time has come when the artificial barrier of age should be swept away so that children under school age should share equally with children of school age the facilities that are already provided for the latter.

Directions in which the service could be extended and consolidated are as follows : (1) a scheme for the provision of dentures for those expectant or nursing mothers who as a result of necessary dental treatment have been rendered edentulous, (2) a scheme for the X-ray treatment of Ringworm in young children similar to that provided for school children, (3) a scheme for the isolation hospital nursing of Measles in infants, (4) the provision of facilities for the treatment of minor ailments in children under school age.

The first and last of these suggested schemes have already been under consideration and may come into being in the near future.

Improvements or extensions in the present service have taken place in two directions during the year.

To enable the supervision of children from 2 to 5 years of age to be more complete an extra part time Health Visitor is to be appointed. This person will also act as a part time School Nurse, and the work of the Corporation Nursing Staff will be so re-organised that eventually each nurse will be responsible for Health Visiting and School Nursing in an allotted area of the town, so that infants, young children and school children in any one area will be under the supervision of one nurse instead of two as at present.

The other direction in which a change has been made during the year is in the provision of Grade A Tuberculin tested milk instead of ordinary milk for infants and young children.

The work done during the year is set out in the following tabular statements.

Visits of Health Visitors, 1928.

	Ante-Natal Visits.	Under 1 year.		1—5 Years Visits.	Infant Death Enquiries.	Still-birth Enquiries.	Home Nursing.	Totals.
		First Visits.	Return Visits.					
January ...	48	30	153	117	—	2	4	354
February ...	46	57	349	177	2	3	2	636
March ...	98	59	537	388	6	—	1	1089
April ...	72	38	308	165	—	—	2	585
May ...	81	35	489	337	2	2	—	946
June ...	107	54	474	337	4	2	1	979
July ...	63	31	363	254	3	1	—	715
August ...	28	27	149	115	1	—	1	321
September	58	48	377	187	2	2	—	674
October ...	86	32	487	329	1	6	—	941
November	98	30	406	321	3	—	—	858
December ...	101	39	452	294	2	2	—	890
Total ...	886	480	4544	3021	26	20	11	8988

The method of feeding of infants, as ascertained at the first visit, is indicated below :—

Breast.	Bottle & Breast.	Bottle Fed.	Artificial Food.	Not investigated.	Died before Fed.	Total.
403	13	40	16	105*	11	588

* Of this number 66 were born in Shrewsbury, but live outside the Borough boundaries.

Some of the children who were breast fed on the occasion of the first visit had a change of feeding later and the number and length of time breast fed were as follows :—

Total Children observed.	Left after 1st Visit.	1 week.	2 weeks.	3 weeks.	4 weeks.	5 weeks.	6 weeks.	2 months	3 months	4 months	5 months	6 months & over
403	24	7	12	14	11	6	13	33	27	24	21	21

WELFARE CENTRE.

The Welfare Centre is held on two afternoons each week, at which the Medical Officer of Health, Health Visitors and Voluntary Helpers attend.

Its popularity and usefulness have been maintained.

The following figures indicate the amount and nature of the work that is performed.

	Under 1 year.	1—5 years.	Expectant Mothers.
Borough ...	213	71	33
New Cases ...	...	...	...
County ...	12	21	—
Borough ...	66	286	35
Old Cases ...	...	...	...
County ...	2	3	—
Total Attendances ...	3911		216

The amount of work done at each session may be gauged from the following average numbers.

Average attendance of Mothers each afternoon	...	...	29
„ „ „ Children „ „	...	...	39
„ number of children medically examined	...	...	27

Other activities may be summarised as follows.

Number of Mothers who received Dental treatment	...	...	20
„ „ Children „ „ „ „	...	...	9
„ „ Children referred to Eye, Ear & Throat Hospital			25
„ „ „ „ „ Cripple Care Centre	...	...	5
„ „ „ admitted to Orthopædic Hospital	...		5
„ „ „ referred to Doctors, Infirmary or Relieving Officer	...	...	42
„ „ „ under 3 years receiving Free Milk	...		35
„ „ Expectant Mothers „ „ „	...		13
„ „ Nursing „ „ „	...		27
„ „ Cases admitted to Maternity Home	...	...	7

It would be difficult if not impossible to carry on the work of the Welfare Centre without the help of the voluntary workers some of whom are members of the School for Mothers Committee which was formed as long ago as 1906.

The activities of this voluntary Committee which deserves much more support than is at present given include the following : (1) provision of tea to drink for Mothers attending Welfare Centre, (2) maintenance of 3 sand gardens for toddlers during August, (3) organisation of an Annual Baby Show, (4) provision of Cod Liver oil, Virol and other extra nourishment as advised by the Medical Officer for those who cannot afford to purchase them, (5) sewing classes at which instruction is given and baby garments sold at a low price.

Ante-Natal Clinic. Expectant Mothers seen at the Welfare Centre or interviewed in their homes by the Health Visitors are advised to attend the Ante-Natal Clinic which is held once a fortnight, if they are not under supervision of their own doctor.

The following figures show the work that has been done.

Number of sessions held	...	...	...	24
Number of patients examined Ante-Natally		98	}	110
Post Natally		12		
Total number of attendances	...	...	...	240

Of the 110 patients examined, the reference of the patients to the Ante-Natal Clinic was brought about as follows :—

By whom referred.				For Ante-Natal Examination.	For Post Natal Examination.
Doctors	...	...	...	8	1
Midwives	...	...	...	6	—
Health Visitors	...	...	...	71	9
Own Initiative	...	...	...	13	2

It is satisfactory to note that the number of women attending of their own accord has increased compared with recent years.

The work of an Ante-Natal Clinic is to correct as far as possible those conditions which are enfeebling the potential mother's health and includes such general measures as advice as to clothing, exercise, rest, fresh air, and food, the removal of dental sepsis, and in cases of insufficient nourishment, the supply of milk to supplement an inadequate diet. The special measures embrace a physical examination of the heart, lungs and other systems of the body, and a detailed investigation of those structures intimately concerned in the mechanism of parturition.

Of the 98 women examined Ante-Natally, 73 were known to have been confined during the year and the results of the confinements were as follows.

Number of Live Births	...	...	...	...	...	64
„ „ Stillbirths	...	...	...	...	...	6
„ „ Miscarriages	...	...	...	...	...	3
No record of birth (e.g. Left town, etc.)				...	...	3
Not yet confined	...	...	...	...	...	22
Confinements at own Home	...	...	...	...	...	49
„ at Royal Salop Infirmary				...	...	9
„ at Maternity Home			...	...	...	6
Deaths as a result of or following confinement					...	1
Cases of Puerperal Fever or Pyrexia after confinement						2

The death following confinement was that of a woman who developed Puerperal Mania from which she died.

Maternity Home. Mothers whose home circumstances are such that confinement is impossible owing to insufficient accommodation or undesirable owing to the absence of facilities to ensure cleanliness in the course of labour can be admitted to the Maternity Home.

All patients admitted are examined at the Ante-Natal clinic prior to admission, and they make payment towards the cost of maintenance, according to the family income, the sum arrived at, being agreed upon by the patient, her husband and the Medical Officer of Health.

Half of this sum has to be paid before admission.

Seven patients were admitted to the Maternity beds at Berrington Hospital during the year.

The disinclination to seek admission to this Maternity Home owing to its association with a Poor Law Hospital is declining as a result of favourable impressions received by those who have been treated there, the knowledge of which is spreading slowly throughout the town. It will be found by the time the next report is written that a larger number of women have availed themselves of the facilities provided.

The Incidence of Infectious Diseases among Parturient Women.

During the year 2 cases of Puerperal Fever and 6 cases of Puerperal Pyrexia were notified. There were no deaths.

Under the arrangements in force for treating such cases, 2 were admitted to Hospital and 1 was provided with a trained nurse.

OPHTHALMIA NEONATORUM.

The incidence and disposal of cases of Ophthalmia Neonatorum is set out in the following table.

Cases.			Vision unimpaired.	Vision impaired	Total Blindness.	Deaths
Notified	Treated.					
	At Home.	In Hospital.				
4	1	3	4	—	—	—

Two of these were treated as out-patients at Eye Hospital.

ADOPTIVE ACTS, BYELAWS AND LOCAL REGULATIONS,
with date of adoption :—

- Public Health Acts (Amendment) Act, 1890. Adopted. 1908.
 Infectious Disease (Prevention) Act, 1890. Adopted 1909.
 Public Health Acts (Amendment) Act, 1907. Adopted 1912.
 Public Health Act, 1925. Adopted February, 1927.
 Byelaws with respect to Slaughterhouses. Adopted 13th
 Feb., 1888.
 Byelaws with respect to Nuisances in the Borough. Adopted
 28th Aug., 1905.
 Byelaws with respect to Common Lodging Houses. Adopted
 13th Aug., 1906.
 Byelaws with respect to Public Slaughterhouses. Adopted
 16th Oct., 1911.
 Byelaws and Amended Byelaws with respect to Public
 Slaughterhouse. Adopted 26th Nov., 1919.
 Byelaws with respect to New Streets and Buildings. Adopted
 22nd June, 1877. Revised 9th October, 1923.



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